United States Department of Agriculture
NRCS Natural Resources Conservation Service

P.O. Box 2890
Washington, D.C.
20013

SOP Title: Encryption and Password Protection To Safeguard Sensitive and Private Information
Deputy Area / Division: **Deputy Chief for Management, Information Technology Division**
Revision: 1.0 **Page 1 of 9**

1. Purpose:

To provide NRCS employees and partners the Standard Operating Procedures (SOP) for encryption and password protection to safeguard sensitive and private information through the use of WinZip (archive utility for Windows).

2. Scope:

This SOP will be used by all employees and partners to transmit sensitive and private information through Microsoft (MS) Office Outlook.

3. Outline of Procedure:

4.1 Definitions
4.2 Roles and Responsibilities
4.3 How to Use WinZip for Encryption with password protection.
4.4 Rename the WinZip file for transmission through MS Office Outlook.
4.5 Correct method for the transmission of the WinZipped file and the password through MS Outlook.

4. Specific Procedures:

4.1 Definitions

A. WinZip:
WinZip, the archive utility for Windows, is an easy-to-use, time saving tool that reduces the size of files and provides password-based AES encryption to protect confidential information.

B. Sensitive and Private Information:
Per GAO: "...Sensitive data, including personnel, customer accounts, and financial information..."

"...Sensitive data—including information relating to the privacy of U.S. citizens, payroll and financial transactions, proprietary information, agricultural production and marketing estimates, and other mission critical data..."

THE PRIVACY ACT OF 1974: "...establish appropriate administrative, technical and physical safeguards to insure the security and confidentiality of records and to

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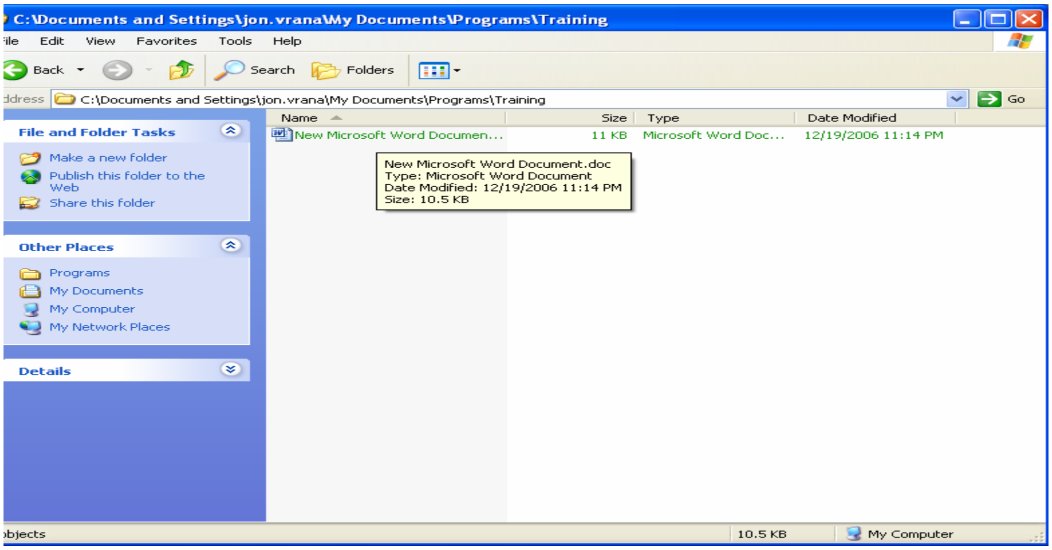
protect against any anticipated threats or hazards to their security or integrity which could result in substantial harm, embarrassment, inconvenience, or unfairness to any individual on whom information is maintained…"

4.2 Roles and Responsibilities

A. Employees and Partners:
All permanent employees, temporary employees working over 30 days, contractors, volunteers, and partners, including Conservation District and RC&D employees, who have access to NRCS computer systems, networks, and email are responsible for ensuring the protection of transmitted private and sensitive information.

4.3 How to use WinZip for Encryption with password protection

4.3.1 Locate the document that you need to zip, using Windows Explorer.



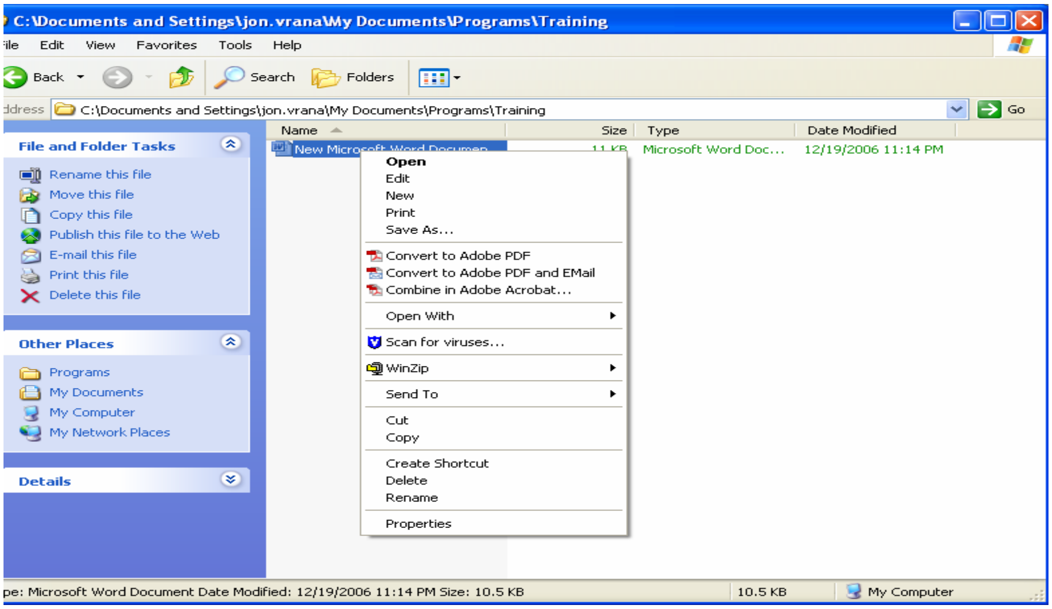
C:\Documents and Settings\jon.vrana\My Documents\Programs\Training

ddress C:\Documents and Settings\jon.vrana\My Documents\Programs\Training

Name	Size	Type	Date Modified
New Microsoft Word Documen…	11 KB	Microsoft Word Doc…	12/19/2006 11:14 PM

New Microsoft Word Document.doc
Type: Microsoft Word Document
Date Modified: 12/19/2006 11:14 PM
Size: 10.5 KB

4.3.2 Right mouse click on the file to bring up the menu containing WinZip.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Convert to Adobe PDF and EMail
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Scan for viruses...
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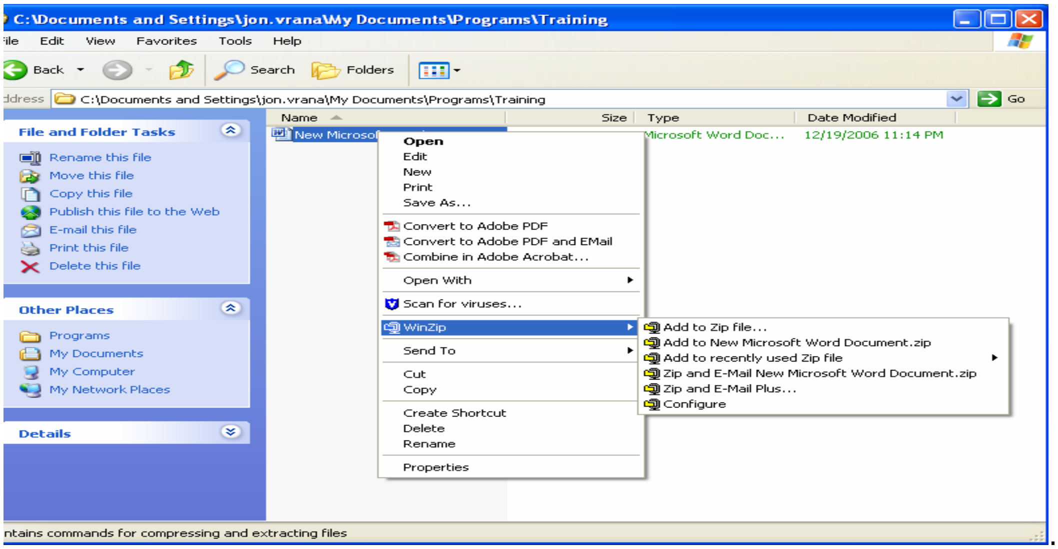
pe: Microsoft Word Document Date Modified: 12/19/2006 11:14 PM Size: 10.5 KB 10.5 KB My Computer

4.3.3 Highlight WinZip on the menu to bring up the WinZip submenu.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WinZip
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Create Shortcut
Delete
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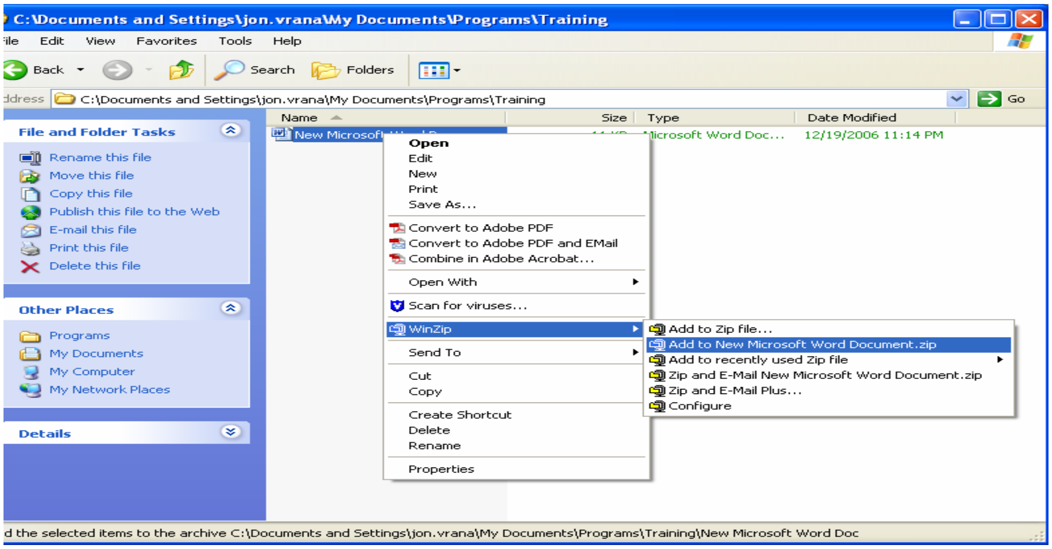
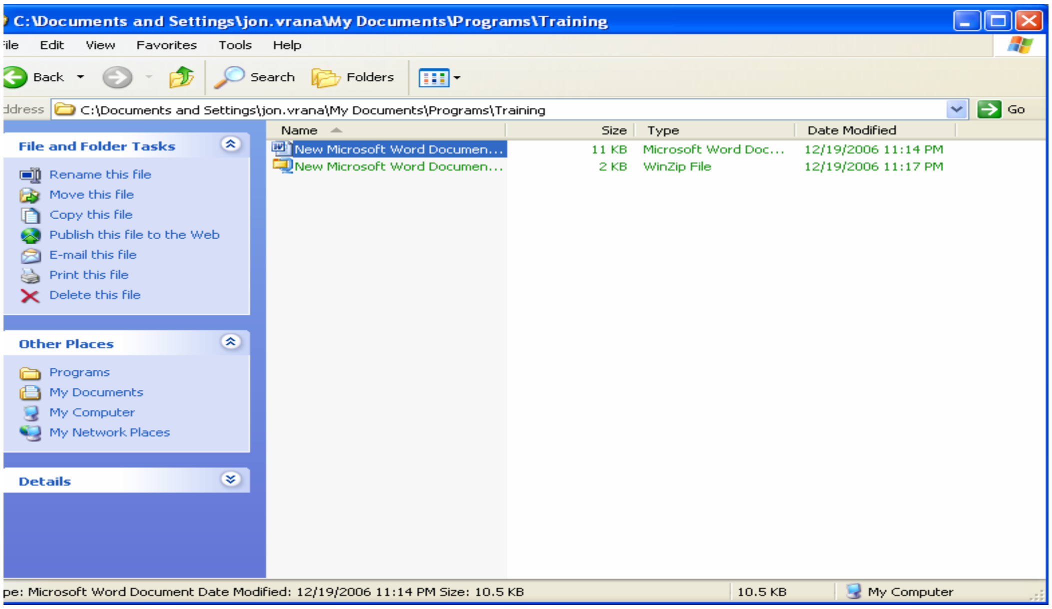
Add to Zip file...
Add to New Microsoft Word Document.zip
Add to recently used Zip file
Zip and E-Mail New Microsoft Word Document.zip
Zip and E-Mail Plus...
Configure
ntains commands for compressing and extracting files

4.3.4 Select the second option “Add to *FileName*.zip.” Once you select this option, the file will automatically be zipped and the zipped file placed in the same directory as the original file.



d the selected items to the archive C:\Documents and Settings\jon.vrana\My Documents\Programs\Training\New Microsoft Word Doc

4.3.5 Here you can see the original and newly created WinZipped versions of the file.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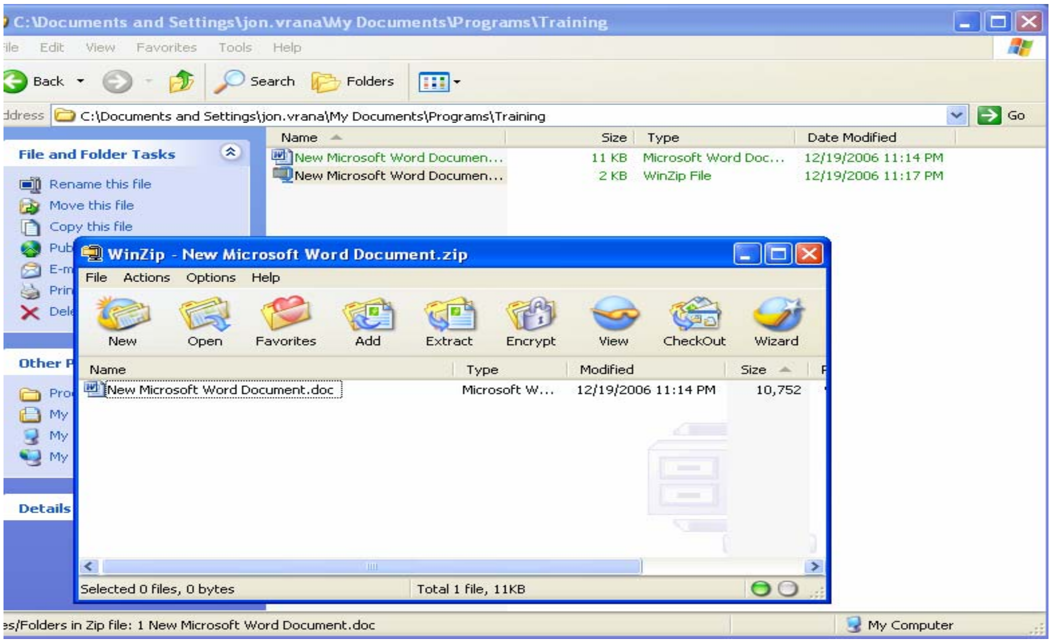
Delete this file
Other Places
Programs
My Documents
My Computer
My Network Places
Details

Name	Size	Type	Date Modified
New Microsoft Word Documen...	11 KB	Microsoft Word Doc...	12/19/2006 11:14 PM
New Microsoft Word Documen...	2 KB	WinZip File	12/19/2006 11:17 PM

pe: Microsoft Word Document Date Modified: 12/19/2006 11:14 PM Size: 10.5 KB 10.5 KB My Computer

4.3.6 Double-click on the zipped file to open up the WinZip dialogue screen. The dialogue screen will display your original file.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File and Folder Tasks
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Details
WinZip - New Microsoft Word Document.zip
File Actions Options Help
New Open Favorites Add Extract Encrypt View CheckOut Wizard
My Computer

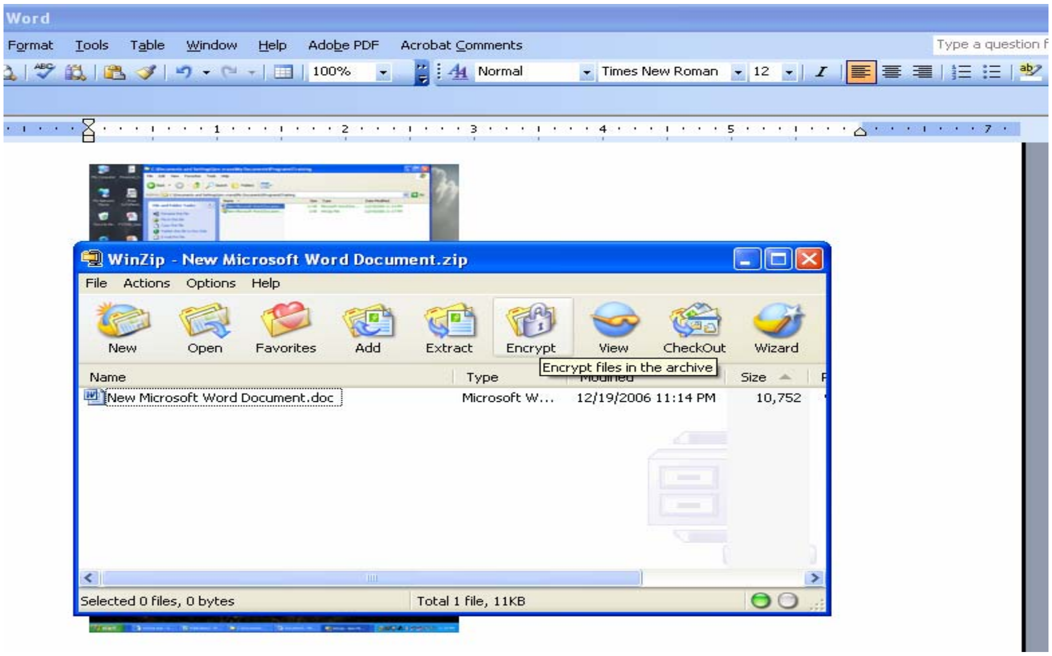
Name	Size	Type	Date Modified
New Microsoft Word Documen…	11 KB	Microsoft Word Doc…	12/19/2006 11:14 PM
New Microsoft Word Documen…	2 KB	WinZip File	12/19/2006 11:17 PM

Name	Type	Modified	Size
New Microsoft Word Document.doc	Microsoft W…	12/19/2006 11:14 PM	10,752

Selected 0 files, 0 bytes | Total 1 file, 11KB

es/Folders in Zip file: 1 New Microsoft Word Document.doc

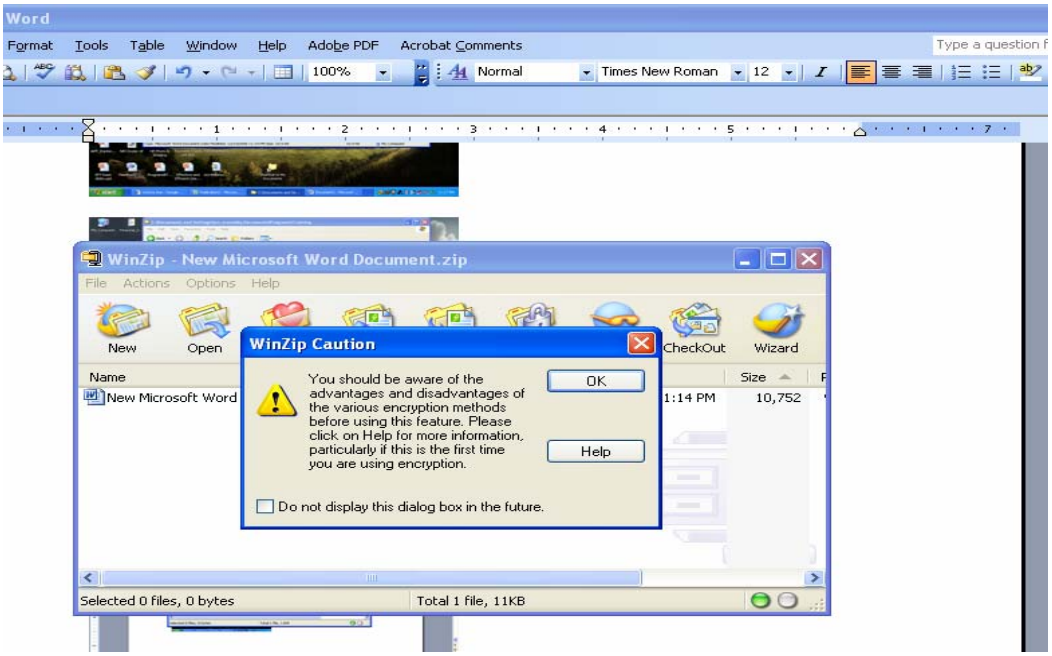
4.3.7 Click on the "Encrypt" button on the WinZip tool icon bar to begin the password protection process.


Word
Format Tools Table Window Help Adobe PDF Acrobat Comments
Type a question f
100% Normal Times New Roman 12
WinZip - New Microsoft Word Document.zip
File Actions Options Help
New Open Favorites Add Extract Encrypt View CheckOut Wizard
Encrypt files in the archive

Name	Type	Modified	Size
New Microsoft Word Document.doc	Microsoft W…	12/19/2006 11:14 PM	10,752

Selected 0 files, 0 bytes | Total 1 file, 11KB

4.3.8 Initially, a caution box will pop up, but ignore it and click "OK."



Word
Format Tools Table Window Help Adobe PDF Acrobat Comments
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WinZip - New Microsoft Word Document.zip
File Actions Options Help
New
Open
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Name
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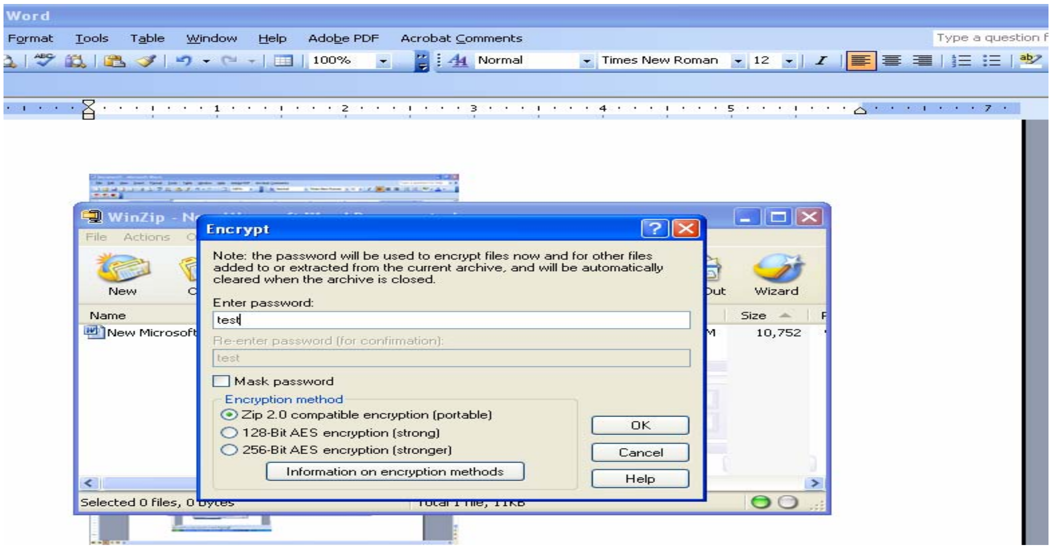
New Microsoft Word
1:14 PM
10,752
OK
Help
Selected 0 files, 0 bytes
Total 1 file, 11KB

WinZip Caution

You should be aware of the advantages and disadvantages of the various encryption methods before using this feature. Please click on Help for more information, particularly if this is the first time you are using encryption.

□ Do not display this dialog box in the future.

4.3.9 Enter a password in the next pop-up window. Change the encryption type to “256-Bit.” It’s the strongest. Click “OK.” The file is now WinZipped and password protected. **NOTE: The file displays an “Asterisk (*)” at the end, denoting an encrypted file.**



Encrypt

Note: the password will be used to encrypt files now and for other files added to or extracted from the current archive, and will be automatically cleared when the archive is closed.

Enter password: test

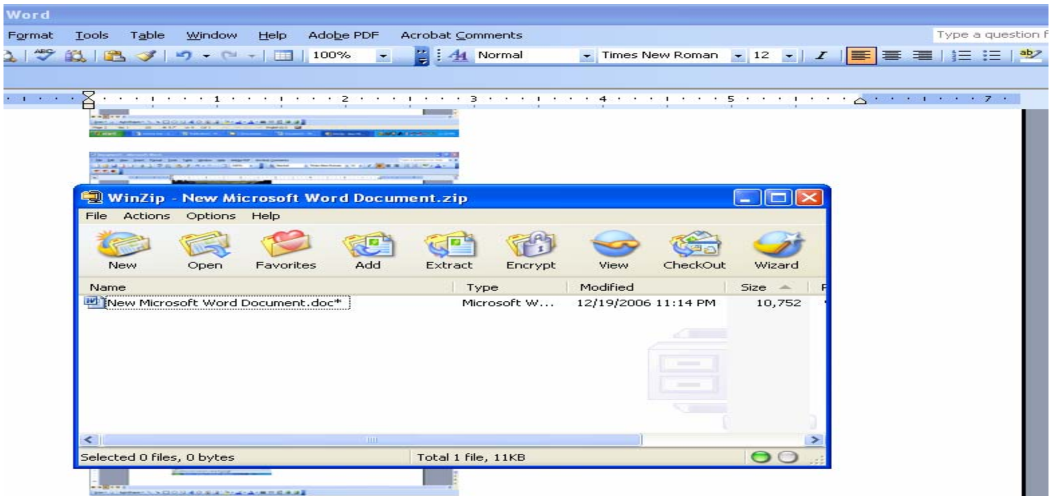
Re-enter password (for confirmation): test

□ Mask password

Encryption method

● Zip 2.0 compatible encryption (portable)
○ 128-Bit AES encryption (strong)
○ 256-Bit AES encryption (stronger)

4.3.10 To test the password protection and WinZip process or to open a previously WinZipped and password protected file; double-click on the WinZipped file. The WinZip pop-up window will be displayed as shown below.



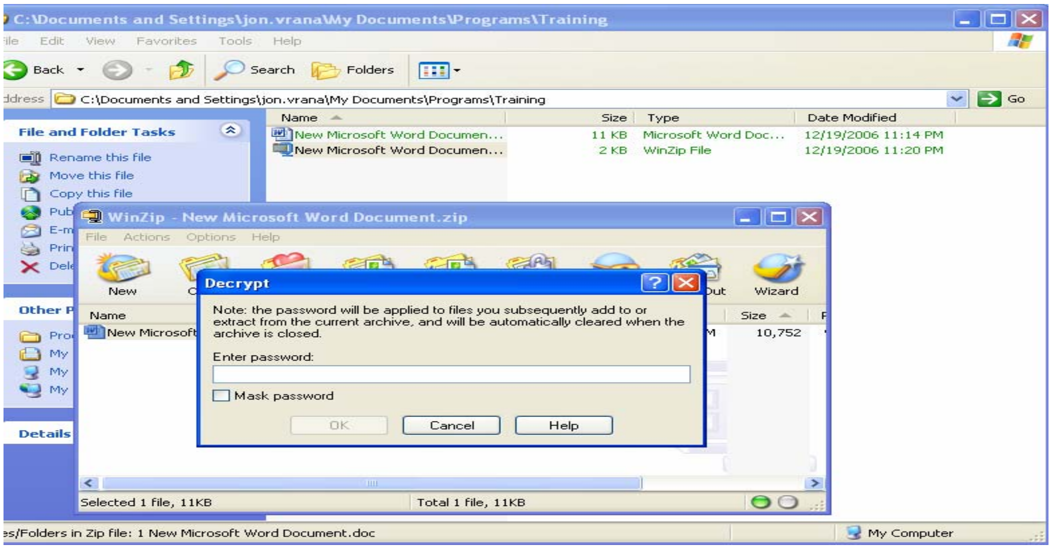
WinZip - New Microsoft Word Document.zip

Name	Type	Modified	Size
New Microsoft Word Document.doc*	Microsoft W...	12/19/2006 11:14 PM	10,752

Selected 0 files, 0 bytes

Total 1 file, 11KB

4.3.11 Double-click on the asterisk denoted file and a window will pop-up that requires you to enter a password.



C:\Documents and Settings\jon.vrana\My Documents\Programs\Training

Name	Size	Type	Date Modified
New Microsoft Word Documen...	11 KB	Microsoft Word Doc...	12/19/2006 11:14 PM
New Microsoft Word Documen...	2 KB	WinZip File	12/19/2006 11:20 PM

WinZip - New Microsoft Word Document.zip

Decrypt

Note: the password will be applied to files you subsequently add to or extract from the current archive, and will be automatically cleared when the archive is closed.

Enter password:

□ Mask password

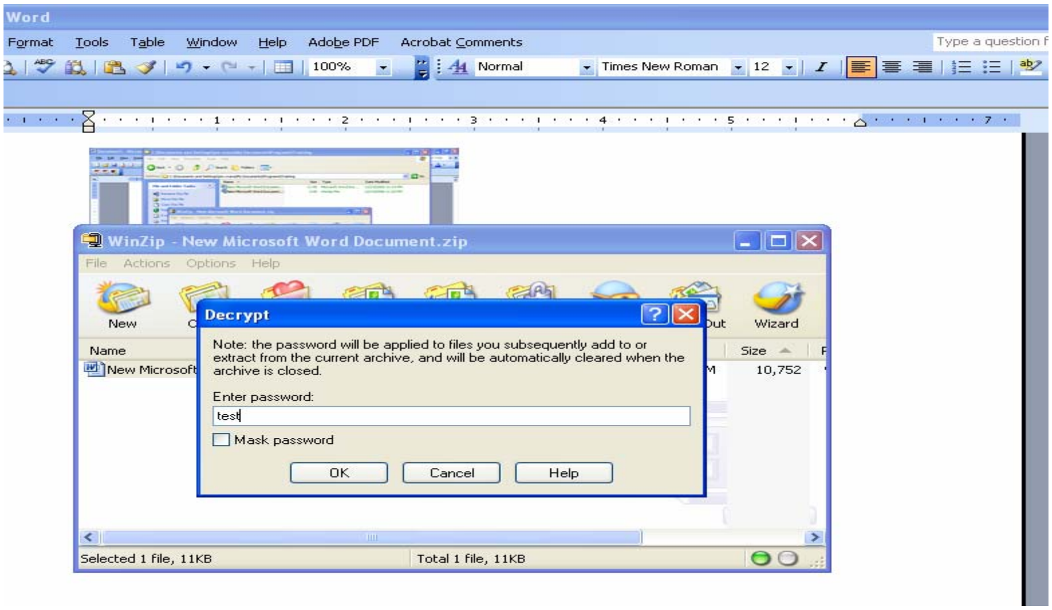
OK   Cancel   Help

Selected 1 file, 11KB

Total 1 file, 11KB

es/Folders in Zip file: 1 New Microsoft Word Document.doc

4.3.12 Enter the required password, leave all other enter items as defaulted, and click on “OK.” The file will be automatically opened in the appropriate Microsoft product (e.g. Word, Excel, PowerPoint, Access). Select File->Save As to save the file in the appropriate directory.


Word
Format Tools Table Window Help Adobe PDF Acrobat Comments
Type a question f
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WinZip - New Microsoft Word Document.zip
File Actions Options Help
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Decrypt
OK
Cancel
Help

Note: the password will be applied to files you subsequently add to or extract from the current archive, and will be automatically cleared when the archive is closed.

Enter password: test

□ Mask password

Selected 1 file, 11KB

Total 1 file, 11KB

4.4 Rename the WinZip file for transmission through MS Office Outlook

Per OCIO-ITS Customer Service Alert, dated April 13, 2007, "…the Service Center Agency (SCA) network continued to see infections caused by the virus variants… a proactive measure of sweeping through unopened/unarchived messages in user's inboxes for *.zip files is currently underway. Wildcard variants of *.zip files (such as .zap or .zop) will also be deleted. If found, these zip files will be deleted. While this will cause some legitimate business impacts, this action increases the success of removing this infection quickly. As*.zip files are deleted, they will also now be blocked by the perimeter Exchange equipment, and will no longer pass from sender to receiver within the SCA environment. If legitimate *zip files need to be sent to pass under the size limitations of Email, user's must rename these files to exclude the *.zip extension."

4.5 Correct method for the transmission of the WinZipped file and the password through MS Outlook.

The password must be sent in a separate email to the receiver than the e-mail containing the WinZipped file.

5. Technical Contact:

1/22/08

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Chief Information Officer

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(202) 690-0242

1/22/08

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Operations Branch Chief

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